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10/560,128	12/09/2005	Takeshi Oka	450100-05109	2855

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EXAMINER

RAHMAN, MOHAMMAD N

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,128	Applicant(s) OKA ET AL.	
	Examiner MOHAMMAD N. RAHMAN	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/29/2010</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's communication filed on 08/19/2010 in response to PTO Office Action mailed on 06/08/2010. The Applicant's remarks and amendments to the claims and/or the specification were considered with the results as follow.
2. **Claims 1-10** are pending in this office action.

Response to Arguments

3. Applicant's arguments, see Remarks, pages 8-11, filed 08/19/2010, with respect to the rejection(s) of claim(s) 1-10 under 35 USC 102 (e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, new ground(s) of rejection is made in view of Yagi et al. (US Patent No. 6,393,206).

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457 58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart

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functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data (See MPE P se ct ion 2 106, IV, B, 1)

5. **Claims 1- 7** are rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-7 lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

7. Applicant has provided evidence in this file showing that the invention was owned by, or subject to an obligation of assignment to, the same entity as obvious at the time this invention was made, or was subject to a joint research agreement at the time this invention was made. However, reference "US Pub. No. 20020164149" additionally qualifies as prior art under another subsection of 35 U.S.C. 102, and therefore, is not disqualified as prior art under 35 U.S.C. 103(c).

Applicant may overcome the applied art either by a showing under 37 CFR 1.132 that the invention disclosed therein was derived from the invention of this application, and is therefore, not the invention "by another," or by antedating the applied art under 37 CFR 1.131.

8. **Claims 1-10** are rejected under 35 U.S.C. 103 (c) as being obvious over Wilkinson (US Publication No. 2002/0164149), in view of Yagi et al (US Patent No. 6,393,206).

As to claim 1, Wilkinson teaches, a file generation apparatus for generating a file of first data to be recorded on a recording medium, the file generation apparatus comprising:

- "first generation means for generating second data to be arranged at the beginning of the file" see at Fig. 1 and Para, [0013] and [0047], (The file

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comprises a file header, a file body and a file footer. The body contains the "essence" that is, in this example, video and / audio essence data.);

- "second generation means for generating third data to be arranged at the end of the file" see at Fig. 1 and Para. [0047] and [0054], (The MXF file is terminated by a file footer); and
- "Wherein the first data is converted from a standard AV multiplexing file that has frame-based video and audio data the first data being either video data or audio data organized according to an edit unit (at Para. [0063], (Metadata may also comprise data relating to edits in the material. It may comprise instructions defining simple editing and other processes to be performed on the material), and wherein the stuffing data has a KLV structure" at Para. [0020], (The packets include integer numbers of whole KLV encoded items containing the data of the structure where a value field V contains the data, a length field indicates the length of the value field and a key field indicates the type of packet).

Wilkinson does not teach, "third generation means for generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data;"

Yagi teaches, "third generation means for generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the

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second data, or the third data” see at Fig. 4 and Fig. 10 and col. 11, lines 40-67, (each consecutive recording area is composed of consecutive sectors in units of ECC blocks (It is desirable for recording apparatuses that in the optical discs, areas in units of sectors are assigned to non-AV data, while areas in units of consecutive recording areas are assigned to AV data so that each consecutive recording area secures uninterrupted reproduction of the AV data. Here, each consecutive recording area is composed of consecutive sectors in units of ECC blocks (in other words, each area is an integral multiple of an ECC block) and has a predetermined size (about 7 MB) or more, each consecutive recording area not outstepping the boundary between zones);

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Yagi into the Optical disc recording apparatus and recording method for facilitating dubbing of Wilkinson, because third generation means for generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data would provide “storing optical disc recording program, and specifically to a rewritable optical disc, an optical disc recording apparatus, and an optical disc recording method”.

Note that claims 8 and 9 recite the corresponding limitations as set forth in claim 1 above, thus rejected accordingly.

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As to claim 2, Wilkinson / Yagi teaches, “the file generation apparatus according to claim 1, wherein the first generation means generates the second data, i.e., a header of the file” see at Para. [0013].

As to claim 3, Wilkinson / Yagi teaches, “the file generation apparatus according to claim 1, wherein the first generation means further comprises format conversion means for converting the first data into a KLV (Key, Length, Value) structure; and wherein the first generation means generates the second data composed of the file's header, and a key and a length arranged between the header and the first data” see at Fig.1 and Para. [0013] and [0020].

As to claim 4, Wilkinson / Yagi teaches, “the file generation apparatus according to claim 1, wherein the third generation means generates the fourth data by making an addition to each of N-1 portions of the first data toward the beginning out of the first data divided into N portions, where N is an integer, so that the data amount of each of the first data divided into N-1 portions becomes an integral multiple of a physical unit area of the recording medium and the overall data amount of the first data becomes an integral multiple of the unit of reading and writing on the recording medium” see at Fig. 2 and 3 and Para. [0064], [0066] and [0067], (the Header Metadata of the preamble comprises 16 bytes of Header Metadata Universal Label (UL), followed by a length byte followed by KLV encoded metadata sets (sets 1 to n) which constitute the data of the value field (V). So it is explained that the length N then the data amount of each of the first data divided into N-1 portions.)

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As to claim 5, Wilkinson / Yagi teaches, “the file generation apparatus according to claim 1, wherein the third generation means generates the fourth data for the first data divided into units corresponding to specified reproduction times with video data and audio data for a plurality of channels multiplexed in accordance with the divided units so that the data amount for each of divided units of the first data corresponds to an integral multiple of the unit of reading and writing on the recording medium” see at Para. [0064], [0133] and [0147].

As to claim 6, Wilkinson / Yagi teaches, “the file generation apparatus according to claim 5, wherein the third generation means generates the fourth data so that the data amount totaling partition data for separating divided portions of the first data from each other, metadata contained in each of divided portions of the first data, and the video data corresponds to an integral multiple of the unit of reading and writing on the recording medium” at Para. [0058], [0081] and [0132].

As to claim 7, Wilkinson / Yagi teaches, “the file generation apparatus according to claim 5, wherein the third generation means generates the fourth data so that the data amount of each of divided portions of the audio data contained in each of divided portions of the first data corresponds to an integral fraction of the unit of reading and writing on the recording medium and the overall data amount of the audio data corresponds to an integral multiple of the unit of reading and writing on the recording medium” see at Fig. 3 and Para. [0058], [0081] and [0132].

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As to claim 10, Wilkinson teaches, A recording medium to record a file of first data, wherein first additional data is added to record the first data whose data amount corresponds to an integral multiple of a unit of reading or writing to the recording medium so that a boundary of the first data matches a boundary of the unit” see at Fig. 1 and Para, [0013] and [0047], (The file comprises a file header, a file body and a file footer. The body contains the "essence" that is, in this example, video and / audio essence data.);

- “wherein second data is arranged at the beginning of the file and is attached with second additional data to have the data amount corresponding to an integral multiple of the unit so that a boundary of the second data matches a boundary of the unit” see at Fig. 1 and Para. [0047] and [0054], (The MXF file is terminated by a file footer); and
- “Wherein the first data is converted from a standard AV multiplexing file that has frame-based video and audio data the first data being either video data or audio data organized according to an edit unit (at Para. [0063], (Metadata may also comprise data relating to edits in the material. It may comprise instructions defining simple editing and other processes to be performed on the material), and wherein the stuffing data has a KLV structure” at Para. [0020], (The packets include integer numbers of whole KLV encoded items containing the data of the structure where a value field V contains the data, a length field indicates the length of the value field and a key field indicates the type of packet).

Wilkinson does not teach, "third generation means for generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data";

Yagi teaches, "third generation means for generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data" see at Fig. 4 and Fig. 10 and col. 11, lines 40-67, (each consecutive recording area is composed of consecutive sectors in units of ECC blocks (It is desirable for recording apparatuses that in the optical discs, areas in units of sectors are assigned to non-AV data, while areas in units of consecutive recording areas are assigned to AV data so that each consecutive recording area secures uninterrupted reproduction of the AV data. Here, each consecutive recording area is composed of consecutive sectors in units of ECC blocks (in other words, each area is an integral multiple of an ECC block) and has a predetermined size (about 7 MB) or more, each consecutive recording area not outstepping the boundary between zones);

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Yagi into the Optical disc recording apparatus and recording method for facilitating dubbing of Wilkinson, because third generation means for generating fourth data which allows the data amount of the first, second, or third data to be an integral multiple of a unit of reading or writing to the recording medium by adding the fourth data to the first data, the second data, or the third data

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would provide “storing optical disc recording program, and specifically to a rewritable optical disc, an optical disc recording apparatus, and an optical disc recording method”.

Conclusion

9. Examiner’s Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which indicate(s) the structure relied on for proper interpretation and also to verify and ascertain in the metes and bounds of the claimed invention.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad N. Rahman whose telephone number is 571-270-1631. The examiner can normally be reached on 7:30am - 5:00 pm, Mon - Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mofiz Apu M can be reached on 572-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad N Rahman/
Examiner, Art Unit 2161
Date: 11/04/2010

/Apu M Mofiz/

Supervisory Patent Examiner, Art Unit 2161